ABSTRACT OF THE DISCLOSURE

Disclosed is a method for performing a handoff from an async base station to a sync base station when a mobile station with async and sync demodulation modules travels from a present cell of the async base station to a cell of the sync base station, the method including the steps of: the mobile station driving the sync demodulation module for a given idle sleep time to acquire and maintain the timing of the sync base station, during an operation in the cell of the async base station; during the handoff, the mobile station measuring the strengths of pilot signals from the adjacent sync base stations based on the acquired timing, and sending the measurement results to the async base station; the mobile station receiving from the async base station information necessary to establish a traffic channel with the sync channel; and the mobile station performing handoff to the sync base station according to the information necessary to establish the traffic channel.